



1971

OPERATING SUMMARY

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MINISTRY OF THE ENVIRONMENT

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CHESTERVILLE

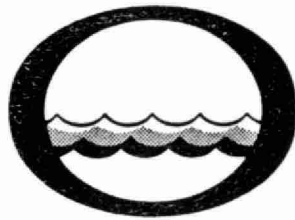
WATER SUPPLY SYSTEM

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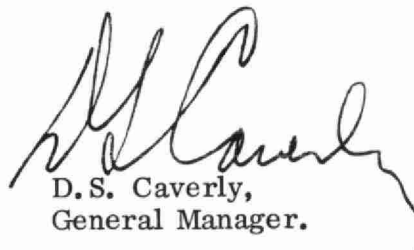


Water management in Ontario


Ontario
Water Resources
Commission

We are pleased to submit for your consideration a summary of operating during 1971 of the water supply system serving your community.

This operating summary contains parameters normally used to measure plant performance and to forecast demands for increased service, as well as relevant cost data. It is our objective to provide an adequate supply of safe and attractive water.



D.S. Caverly,
General Manager.



D.A. McTavish, P. Eng.,
Director,
Division of Plant Operations.

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CHESTERVILLE

WATER SUPPLY SYSTEM

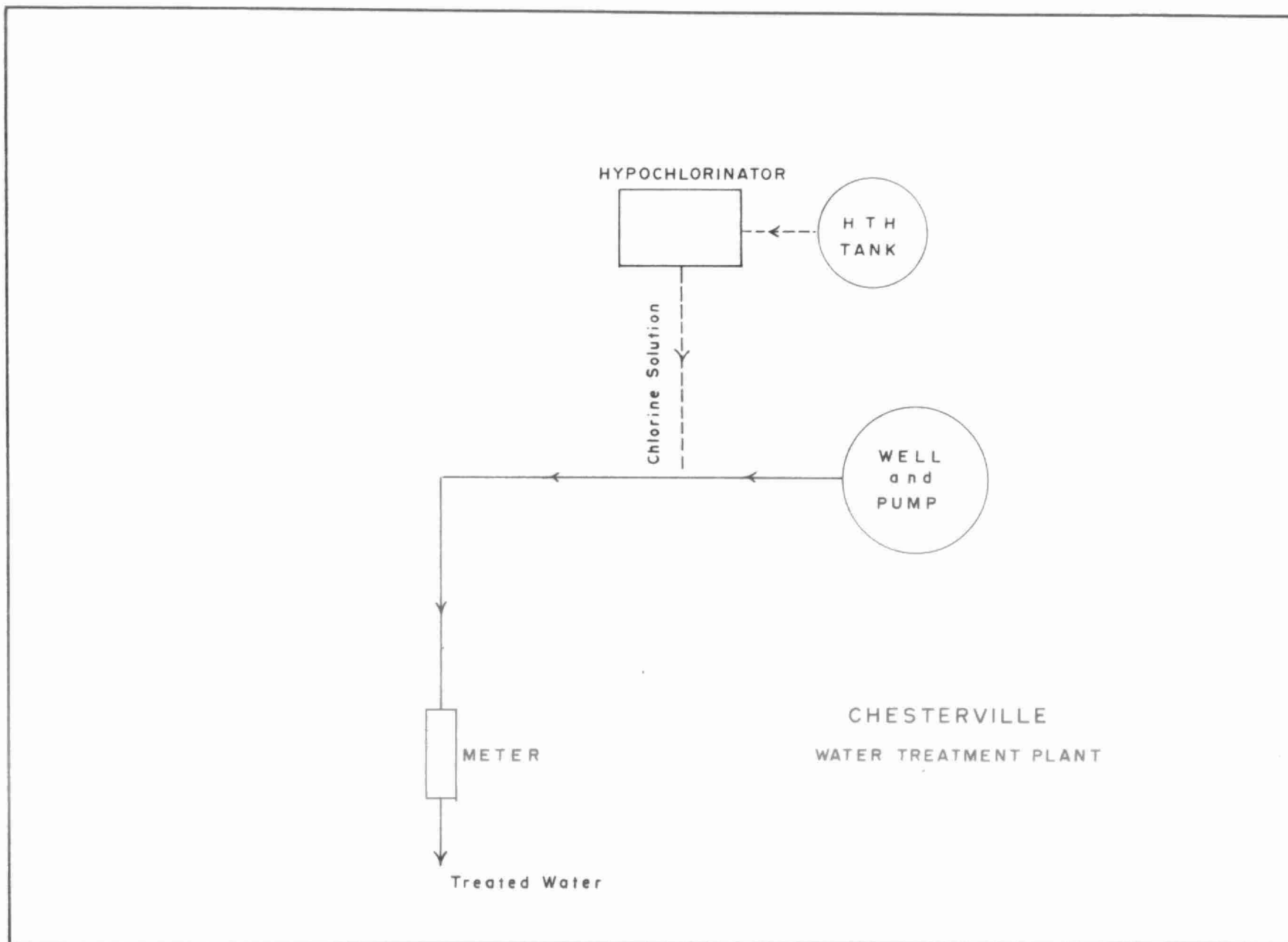
1971 ANNUAL OPERATING SUMMARY



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DESIGN DATA

PROJECT NO. 6-0046-59
TREATMENT Ground Water

Well No. 1 - 10" dia. casing
52' deep
150 gpm

Well No. 2 - 10" dia. casing
bottom of screen 49' deep
40 gpm

Elevated Tank - 125,000 gal.

Distribution System - 6 & 8
inch dia. pipe.

'71 Review

GENERAL

This project consists of both a water works system and a sewage treatment system. Both projects are operated by a chief operator who is employed by the OWRC.

WATER SYSTEM

This system consists of two deep wells, a water distribution system and a 125,000 gallon elevated tank.

The Chesterville Water Treatment works treated 23.98 million gallons of water in 1971. This represented a six percent decrease in volume from 1970.

All repairs experienced at the plant in 1971 were of a minor nature.

EXPENDITURES

The operating costs for 1971 incurred by the OWRC were \$4,471.44.

CONCLUSIONS

The operation and maintenance of the plant has been satisfactory.

PROJECT COSTS

NET CAPITAL COST (Final)	\$293,609.86
DEDUCT - Portion financed by CMHC/MDLB (Final)	<u>-</u>
Long Term Debt to OWRC	<u>\$293,609.86</u>
Debt Retirement Balance at Credit (Sinking Fund) December 31, 1971	\$ <u>77,495.78</u>
Net Operating	\$ 4,471.44
Debt Retirement	3,320.00
Reserve	754.19
Interest Charged	<u>16,468.82</u>
TOTAL	\$ <u>25,014.45</u>

RESERVE ACCOUNT

Balance @ January 1, 1971	\$ 21,352.29
Deposited by Municipality	754.19
Interest Earned	<u>1,397.15</u>
	\$ 23,503.63
Less Expenditures	<u>-</u>
Balance @ December 31, 1971	\$ <u>23,503.63</u>

1971 COSTS

OPERATING COSTS

● PAYROLL	%
● FUEL	%
● POWER	17 %
● CHEMICALS	9 %
● GENERAL SUPPLIES	%
● EQUIPMENT	2 %
● REPAIRS & MAINTENANCE	47 %
● SUNDRY	25 %
● WATER	%
● TRAVEL	%

TOTAL ANNUAL COST

NET OPERATING	18 %
DEBT RETIREMENT	13 %
RESERVE	3 %
INTEREST	66 %

YEARLY OPERATING COSTS

YEAR	WATER TREATED in million gallons	TOTAL OPERATING COSTS	TREATMENT COSTS per 1000 gallons
1971	23.9	\$4,471.44	19 cents

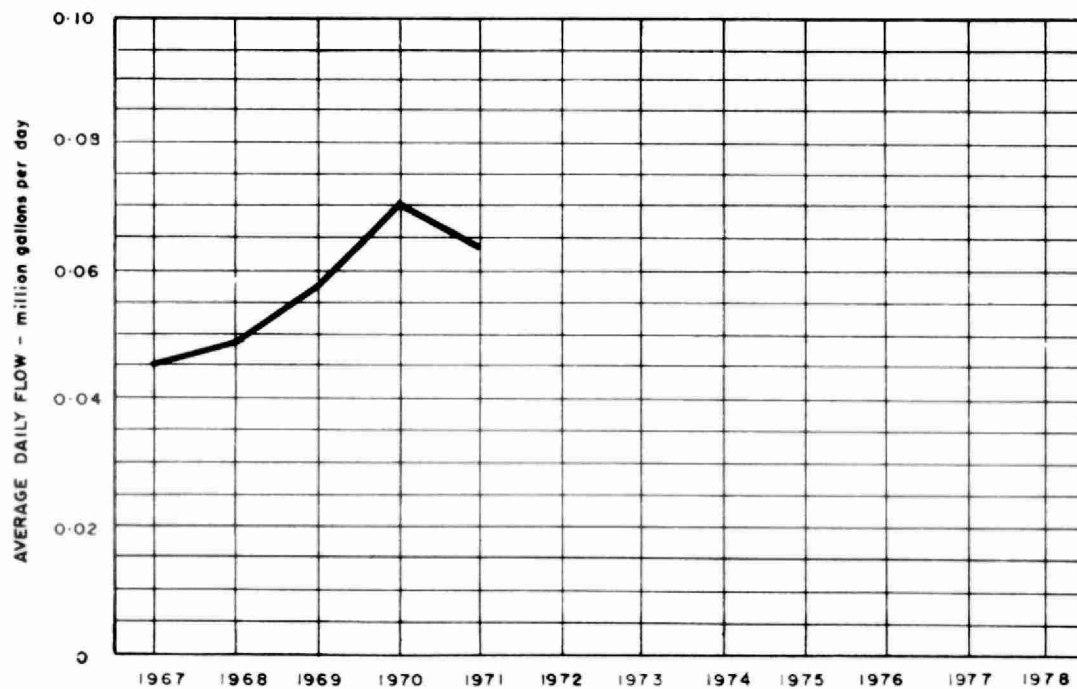
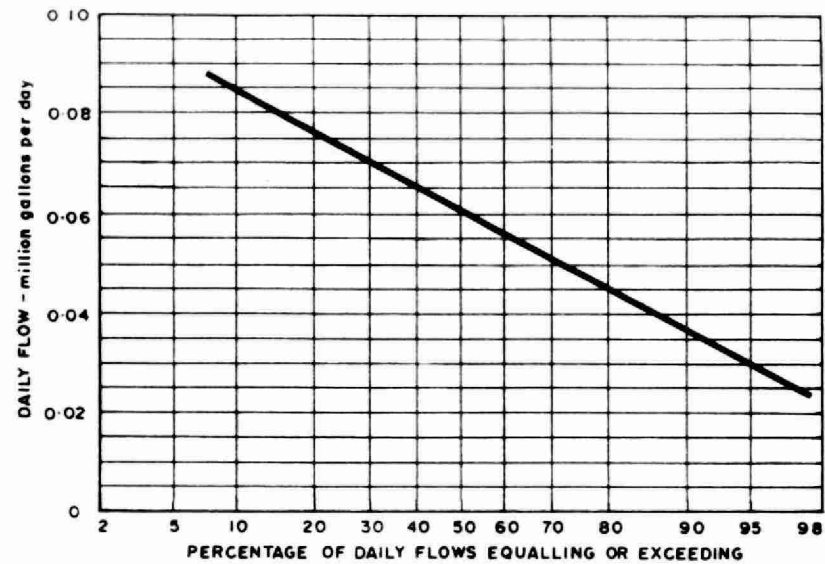
MONTHLY OPERATING COSTS

MONTH	TOTAL EXPENDITURE	REGULAR PAYROLL	CASUAL PAYROLL	FUEL	POWER	CHEMICALS	GENERAL SUPPLIES	EQUIPMENT	REPAIRS and MAINTENANCE	SUNDRY	TRAVEL
JAN											
FEB	264.30				101.30	100.00			63.00		
MAR	4.47									4.47	
APR	242.87				214.85				28.02		
MAY	32.13							32.13			
JUNE	364.27				119.33				244.94		
JULY	558.76					100.98		63.00	354.78	40.00	
AUG	258.65				114.65				145.00		
SEPT	177.73									177.73	
OCT	367.81				78.90	100.98			187.93		
NOV	449.89								449.89		
DEC	1749.56				123.59	100.98			624.50	900.49	
TOTAL	4471.44				752.62	402.94		95.13	2098.06	1122.69	

Brackets indicate credit.

PROCESS DATA

FLows



PLANT PERFORMANCE

MONTH	FLOWS				RAW WATER		TREATED WATER					
	TOTAL PLANT OUTPUT million gallons	AVERAGE DAILY FLOW million gallons	MAXIMUM DAY'S FLOW million gallons	MAXIMUM RATE mgd	TURBIDITY (AVERAGE) JTU	COLOUR (AVERAGE) App. units	TURBIDITY		COLOUR		TEMPERATURE	
							AVERAGE JTU	MAXIMUM JTU	AVERAGE App. units	MAXIMUM App. units	AVERAGE ° F	MAXIMUM ° F
JAN	2.64	.085	.145	.238								
FEB	1.64	.059	.067	.238								
MAR	1.77	.059	.060	.238								
APR	1.69	.057	.079	.238								
MAY	1.83	.059	.098	.230								
JUNE	2.70	.088	.143	.230								
JULY	2.53	.082	.127	.230								
AUG	2.60	.066	.121	.230								
SEPT	1.66	.055	.083	.230								
OCT	1.67	.053	.124	.230								
NOV	1.76	.059	.106	.230								
DEC	1.49	.049	.143	.230								
TOTAL	23.98	-	-	-								
AVG.	-	.066	MAXIMUM .143	MAXIMUM .238				MAXIMUM		MAXIMUM		MAXIMUM

CHLORINATION and DISINFECTION

MONTH	RAW WATER					PLANT EFFLUENT		DISTRIBUTION SYSTEM		CHLORINATION			
	NUMBER OF SAMPLES HAVING TOTAL COLIFORM ORGANISMS PER 100 ml OF					NUMBER OF SAMPLES TAKEN	NUMBER HAVING COLIFORM ORGANISMS	NUMBER OF SAMPLES TAKEN	NUMBER HAVING COLIFORM ORGANISMS	TOTAL AMOUNT OF SODIUM HYPOCHLORITE gallons	DOSAGE		RESIDUAL IN PLANT EFFLUENT mg/l
	0	1 - 3	4 - 32	33 - 320	> 320						PRE - mg/l	POST - mg/l	
JAN	1	-	-	-	-	1	0	3	0	390	-	-	.5
FEB	2	-	-	-	-	1	0	8	0	322	-	-	.6
MAR	1	-	-	-	-	-	-	4	0	320	-	-	.5
APR	-	-	-	-	-	-	-	-	-	289	-	-	.5
MAY	1	-	-	-	-	1	0	6	0	317	-	-	.5
JUNE	2	-	-	-	-	1	0	7	0	498	-	-	.5
JULY	-	-	-	2	-	2	1	3	1	449	-	-	.5
AUG	-	-	-	-	-	-	-	-	-	401	-	-	.5
SEPT	-	-	-	-	-	-	-	-	-	316	-	-	.5
OCT	-	-	-	-	-	-	-	-	-	403	-	-	.5
NOV	1	-	-	-	-	1	0	3	0	351	-	-	.5
DEC	1	-	-	-	-	-	-	5	0	294	-	-	.5
TOTAL	9	-	-	2	-	7	1	39	1	4350	-	-	-
AVG.	0 (NOTE - Average shown is the GEOMETRIC MEAN)					-	-	-	-	12 gallons per day	-	-	.5

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